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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/970,297	10/02/2001	Sean S. Chen	NSC-P05052	9656

7590 06/25/2003
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EXAMINER

CUNNINGHAM, TERRY D

ART UNIT PAPER NUMBER

2816

DATE MAILED: 06/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/970,297

Applicant(s)

CHEN, SEAN S.

Examiner

Terry D. Cunningham

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-8,11-13,15-21 and 23 is/are pending in the application.

4a) Of the above claim(s) ____ is/are withdrawn from consideration.

- 5) ☐ Claim(s) ____ is/are allowed.

- 6) ☒ Claim(s) 1-4,6-8,11-13,15-21 and 23 is/are rejected.

- 7) ☐ Claim(s) ____ is/are objected to.

- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

DETAILED ACTION

Request for Continued Examination

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 28 May 2003 has been entered.

Summary of changes in this action

1. Although Examiner maintains that the art rejection of record is valid, such has been modified to provide stronger motivation.
2. The rejection under 35 U.S.C. § 112, second paragraph has been overcome by the cancellation of the corresponding claims.

New Matter

The amendment filed 29 January 2003 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is the limitation that the "voltage pull-up device is implemented as a transistor with less than 1.0 V_{BE}".

Firstly, there is no "pull-up device" found to be disclosed that is a "transistor". The only element found to be disclosed that is a "pull-up device" that meets the claim limitations is element 214,314. However, there is no disclosure of element 214 or 314 being a "transistor".

Applicant is required to cancel the new matter in the reply to this Office Action.

Examiner has considered Applicant's remarks for the above rejection and has not found them to be persuasive. While Examiner agrees that element 309 is a pull-up element that can be

Art Unit: 2816

“implemented as a transistor with less than $1.0 V_{BE}$ ”, there is no support for such being separate from the “band-gap reference circuit” as claimed.

Claim Objections

Claim 1 is objected to because the phrase “less than $1.0 V_{BE}$ ” is confusing. Generally, when referring to band-gap circuit $1 V_{BE}$ refers to the number of V_{BE} threshold referred to. Thus, it is suggested that “less than $1.0 V_{BE}$ ” be changed to --a V_{BE} less than 1.0 voltages--.

Claim 7 is objected to for similar reasons as claim 1.

Claims 2-4, 6, 8 and 11-15 are objected to for the reasons discussed above with claims 1 and 7.

Appropriate corrections for the above discussed objections are required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6-8, 11-13, 15-21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kadanka et al. (USPN 5,621,308) in view of newly cited art to Mietus (USPN 5,666,046). Kadanka et al. disclose, in Fig. 2, a circuit comprising: “a band-gap reference circuit (73)”; “a buffer circuit (54)”; and “a voltage pull-up device (70)”, wherein the “voltage pull-up device” has a “transistors (48)”. Kadanka et al. does not expressly disclose that transistor 46 has a “less than $1.0 V_{BE}$ ”. However, it is notoriously well known, as expressly taught by Mietus (e.g., see Col. 1, lines 56-67), to use a voltage of 0.7 volts for the expect advantage of

Art Unit: 2816

using a lower supply voltage (e.g., 0.8 volts). Therefore, it would have been obvious for one skilled in the art to manufacture transistor 48 with "less than 1.0 V_{BE} " for the expected advantage allowing for a lower supply voltage.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terry Cunningham whose telephone number is 703-308-4872. The examiner can normally be reached on Monday-Thursday from 7:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on 703-308-4876. The fax phone numbers for Technology Center 2800 are 703-872-9318 for Before Final communications and 703-872-9319 for After Final communications. Please note, any faxed paper clearly stating **DRAFT** or **PROPOSED AMENDMENT** at the top will be forwarded directly to the Examiner. All others will be treated as a formal response and acted upon accordingly.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is 703-308-0956.

TC
June 21, 2003


Terry D. Cunningham
Primary Examiner
Art Unit 2816